Patent Claims

1. A card-shaped data carrier, comprising at least one layer (1, 2, 3) into which visually readable information is introduced in the form of a change in the optical property on the basis of a material change effected irreversibly by a laser beam, characterized in that the absorption capacity of this layer (1, 2, 3) for at least one wavelength ($\lambda \pm \Delta\lambda$) is at least partly reduced as a result of the laser radiation.

2. A card-shaped data carrier as claimed in claim 1, characterized in that the layer (1, 2, 3) has colored pigments which, under the influence of laser radiation with the wavelength ($\lambda \pm \Delta\lambda$), at least partly lose their absorption capacity for the wavelength ($\lambda \pm \Delta\lambda$).

3. The card-shaped data carrier as claimed in claim 1 or 2, characterized in that

- the same has two or more layers (1, 2, 3), which each have a different absorption capacity for at least one wavelength ($\lambda \pm \Delta\lambda$),
- the absorption capacity of at least one layer (1, 2, 3) for at least one wavelength ($\lambda \pm \Delta\lambda$) is at least partly reduced as a result of the laser radiation.

4. The card-shaped data carrier as claimed in one of the preceding claims, characterized in that

- the same has at least two layers (1, 2, 3) which have a respectively different absorption capacity for at least two different wavelengths ($\lambda_1 \pm \Delta\lambda_1$, $\lambda_2 \pm \Delta\lambda_2$, $\lambda_3 \pm \Delta\lambda_3$),
- the absorption capacity of a first layer (1) for the wavelength ($\lambda_1 \pm \Delta\lambda_1$) being at least partly reduced under the influence of the laser radiation of the wavelength ($\lambda_1 \pm \Delta\lambda_1$),
- the absorption capacity of a second layer (2) for the wavelength ($\lambda_2 \pm \Delta\lambda_2$) being at least partly reduced under the influence of the laser radiation of the wavelength ($\lambda_2 \pm \Delta\lambda_2$).

5. The card-shaped data carrier as claimed in one of the preceding claims, characterized in that at least one of the layers (1, 2, 3) is at least partly transparent to visible light (400 nm to 800 nm).

6. The card-shaped data carrier as claimed in one of the preceding claims, characterized in that the layers (1, 2, 3) whose absorption capacity is reduced under the influence of the laser radiation are arranged on a white substrate layer (4).

7. The card-shaped data carrier as claimed in one of the preceding claims, characterized in that a covering

layer (5) that is transparent to visible light is arranged over the layers (1, 2, 3) whose absorption capacity is reduced under the influence of the laser radiation.

8. The card-shaped data carrier as claimed in one of claims 2 to 7, characterized in that the layers (1, 2, 3) are plastic films laminated one over another, in which the colored pigments are contained.

9. The card-shaped data carrier as claimed in one of claims 2 to 7, characterized in that the layers (1, 2, 3) are varnish layers arranged one above another, in which the colored pigments are contained.

10. A method for applying information to card-shaped data carriers, the card-shaped data carrier having at least one layer (1, 2, 3) into which visually readable information is introduced in the form of a change in the optical property on the basis of a material change effected irreversibly by a laser beam, characterized by

- the provision of a card-shaped data carrier which has at least one layer (1, 2, 3) whose absorption capacity for at least one wavelength ($\lambda \pm \Delta\lambda$) is at least partly reduced as a result of the laser radiation,
- acting on this layer (1, 2, 3) of the card-shaped data carrier with the laser radiation, in order to

reduce the absorption capacity of this layer for the wavelength ($\lambda \pm \Delta\lambda$).

11. The method as claimed in claim 10, characterized by

- the provision of a card-shaped data carrier which has two or more layers (1, 2, 3) which have a respectively different absorption capacity for at least one wavelength ($\lambda \pm \Delta\lambda$), and the absorption capacity of at least one layer (1, 2, 3) for at least one wavelength ($\lambda \pm \Delta\lambda$) is at least partly reduced as a result of the laser radiation,
- acting on this one layer (1, 2, 3) of the card-shaped data carrier with the laser radiation, in order to reduce the absorption capacity of this layer for the wavelength ($\lambda \pm \Delta\lambda$).

12. The method as claimed in either of claims 10 and 11, characterized by

- the provision of a card-shaped data carrier which has at least two layers (1, 2, 3) which have a respectively different absorption capacity for at least two different wavelengths ($\lambda_1 \pm \Delta\lambda_1$, $\lambda_2 \pm \Delta\lambda_2$, $\lambda_3 \pm \Delta\lambda_3$),
  - the absorption capacity of the first layer (1) for the wavelength ($\lambda_1 \pm \Delta\lambda_1$) being at least partly reduced under the influence of laser radiation of the wavelength ($\lambda_1 \pm \Delta\lambda_1$),

- the absorption capacity of the second layer (2) for the wavelength ($\lambda_2 \pm \Delta\lambda_2$) being at least partly reduced under the influence of the laser radiation of the wavelength ($\lambda_2 \pm \Delta\lambda_2$),

- acting on the first layer (1) of the card body with laser radiation of the wavelength ($\lambda_1 \pm \Delta\lambda_1$), in order to reduce the absorption capacity of this layer for the wavelength ($\lambda_1 \pm \Delta\lambda_1$),

- acting on the second layer (1) of the card body with laser radiation of the wavelength ($\lambda_2 \pm \Delta\lambda_2$), in order to reduce the absorption capacity of this layer for the wavelength ($\lambda_2 \pm \Delta\lambda_2$).